

Da Costa (J. M.) *al*

Remarks on the treatment of
rose-cold & hay fever by Cocaine

EXTRACTED FROM THE

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF
PHILADELPHIA.

THIRD SERIES, VOLUME VIII.

presented by the author

LIBRARY
SURGEON GENERAL'S OFFICE

OCT.-20-1897

589.

REMARKS
ON THE
TREATMENT OF ROSE-COLD AND HAY FEVER BY
COCAINE.

By
J. M. DA COSTA, M.D.,
PROFESSOR OF MEDICINE IN THE JEFFERSON MEDICAL COLLEGE.

[Read October 7, 1885.]

IN a communication which I made to the College last December,¹ I suggested that cocaine ought to be advantageous in hay fever. During the past summer I have had several opportunities of carrying this thought into effect, and, as I see by some very recent journals, others, too, have employed the drug with the same purpose; altogether, I think, it has been sufficiently tested for us to welcome it as a very decided addition to our means of counteracting this most troublesome affection.

The first case in which I became familiar with its use was one of great susceptibility of the nasal mucous membrane, which I saw last spring in a Southern gentleman. It was more like rose-cold, strictly speaking, than like hay fever, but due to the same irritability of the mucous membrane, and always marked and most annoying with early vegetation. A two per cent. solution, which

¹ Published in the Medical News of December 13, 1884.

LIBRARY
SURGEON GENERAL'S OFFICE

OCT.-20-1897

589.

I afterward increased for a time to a four per cent. solution, gave him such comfort and relief, that I had some difficulty in inducing him to discontinue the remedy. He said that its local employ not only soothed the intolerable irritation and stopped the sneezing fits, but exerted a quieting influence over his whole nervous system, similar to what he experienced from small doses of morphia, to the influence of which he was very sensitive.

One of the most striking instances of success I had with cocaine was in a young lady who had been for four years a great sufferer with rose-cold, which always came on about the middle of May, and lasted until June. Later it became a hay fever, and attacks of troublesome asthma complicated the disorder during the summer and the early autumn, especially in the latter part of July and August. She is a young lady with a sound digestion, and calm nervous system. It has been her habit to leave her country home in summer to go to Newport, whence generally, after a month's struggle with asthma, she has been obliged to move to some of the hay fever resorts in the White Mountains. Her eyes and nose suffer much in the earlier stages of the complaint; there is, however, no sore throat. Later a bronchial affection and asthma appear. The main complaint in the earlier stages is from the intolerable sneezing. This occurs especially in paroxysms in the morning, and is apt to stop after breakfast, although on cool days it often continues all day long. There is, also, especially under such circumstances, much running from the nose. All her pleasures have been interfered with, and her life in summer rendered very miserable by the complaint. She had tried many remedies, both local and general, without effect. Late in May I prescribed cocaine for her,

a four per cent. solution, telling her if she had any throat irritation to apply the remedy also to the throat. This she did not find necessary, the cocaine injected every morning into the nostril by means of a medicine dropper, about five drops in each nostril, gave her prompt relief. It arrested at once the sneezing fits, and she was comfortable, even free from coryza, all day. Once in a while, especially on cool days, a second application in the afternoon was resorted to, but this was rarely required. The numbness from the application lasted about fifteen minutes, and she perceived it more in the throat than in the nose. The most gratifying result from the use of the remedy was, that it prevented the asthmatic seizures.

She passed her summer at Newport without discomfort, only employing the cocaine after a time occasionally, and as she thought she needed it.

The cocaine employed in these and other cases was a four per cent. solution. * A weaker solution, I am convinced, rarely does good. A stronger solution may be found necessary, and, before abandoning the remedy as ineffectual, I should always advise an eight per cent. solution to be tried.

In one case in which I applied a four per cent. solution, cocaine had previously been used, but, I have reason to think, in a much weaker form. The patient, his physician told me, had had hay fever most violently for fifteen years. He was known all over the West as "the hay fever man." He had tried everything; cocaine, too, had failed to relieve him. The attack came on always on the 17th of July, and lasted, with great severity, for months; some bronchial catarrh, but very little asthma, accompanying it. On the 26th of September

he tried a four per cent. solution in the evening, and slept that night comfortably for the first time for months. He has since used from five to eight drops, thrown up the nostrils with a medicine dropper every evening, and always with the best results. He does not like to resort to it in the daytime, because he finds that the fluid passes down his throat, benumbs it, and makes his speech difficult.

Other than the effect just mentioned, I have not seen any unpleasant result from its use. I must, however, except the case of a young married lady, who found so much relief to her hay fever from the local use of a four per cent. solution, that she employed it a number of times daily. The consequences were increased vascular tension and violent and distressing headache.

There is, undoubtedly, an insusceptibility—in some a varying susceptibility—to cocaine locally used. Thus, in an elderly lady with rose-cold, in whom no local remedies act speedily, a four per cent. solution produced very little impression. I meant to try an eight per cent. solution, but, as she left the city, I had no chance, and am thus forced to record this case as a failure.

The manner of employing the cocaine is not without importance. It may be used with a small atomizer as a spray. But the readiest means is to inject from five to eight drops up each nostril, the head being thrown backwards; in some persons once, in most, twice daily, will be found sufficient. It will be necessary to instruct patients not to irritate the membrane by rubbing it needlessly with the glass tube, or pushing this up too far. Thus a patient who had hay fever for thirteen years, and who was at the seashore on the 17th of August when the hay fever came on, and in whom tinc-

ture of *ignatia amara* seemed favorably to influence its course, tried cocaine in one nostril only. He inserted the tube far up, irritated the membrane, and water ran from that nostril, which became sorer and more inflamed than the other. More judicious attempts produced better results, but he could not be persuaded to give the remedy a fair trial, owing to his first experience with it.

Its mode of action in hay fever is partly by the local insensibility it produces, partly by the contractions of the capillaries it induces. The effects are thus chiefly local. It will not arrest the bronchial catarrh or the asthma, which attend some cases; yet it is astonishing how it seems to lessen the tendency to these complications when early applied, and before they have got much headway. Is its action, then, not partly a reflex action? That the remedy is radical, and, strictly speaking, curative, I have not found; but that it gives great comfort, converts bad into light cases, enables those to stay at their homes who otherwise are obliged to flee to hay fever resorts, relieves much suffering and distress, I know and have fairly tested. In no case of rose-cold or hay fever ought cocaine to be left untried.

[After the reading of the preceding paper :—]

Dr. HARRISON ALLEN remarked: I am glad to hear Dr. Da Costa state that the effect of cocaine is inconstant within a narrow range in different individuals. I have observed the same fact. In endeavoring to account for it, I have concluded that the difference lies in peculiarity of the erectile tissue. Those persons in whom the tissue is sparsely developed are, I think, less susceptible to impression by the remedy than are those in whom it is well developed. I recall one case in which a four (as well as an eight) per cent. solution was used persistently without benefit. If, then, one has under observation nasal chambers with mucous membrane exhibiting but little erectile property (changing very little under any of the conditions, such as galvanism, which ordinarily constrict the capillary network), the remedy will give but little relief. I have had three such cases under care during the past summer. The shrinking up of the erectile masses places the nose in what may be called a normal condition, the air passing through at a normal rate and the irritated surfaces not touching each other. One of the cases in which relief was not secured, was that of a lady suffering from the annoyance due to complete occlusion. After applying the cocaine for half an hour there seemed to be a little relief, but it lasted only a short time. Notwithstanding these failures, I have no doubt that further experience will show the truth of the author's statement, that we have in cocaine a remedy which will, in the majority of cases, give relief.

Dr. H. C. WOOD said: In this connection, the observations of Dr. Lyons, of Detroit, may be of interest. He has shown that there are probably two or three alkaloids in cocoa leaf, and that the commercial alkaloid, cocaine, not rarely is composed of more than the one alkaloid, ecgonine, and perhaps a third alkaloid is present. The unexpected results sometimes obtained from the therapeutic use of cocaine, may possibly be due to the presence of one of these other alkaloids.

The Chairman, Dr. RUSCHENBERGER, asked: Can any one tell us whether or not caffeine is capable of taking the place of cocaine?

Dr. H. C. WOOD: I have made some experiments with caffeine on the eyes of patients, and found it to be without effect.

